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PTO/SB/21 (08-03)

Approved for use through 08/30/2003. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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Total Number of Pages in This Submission

Application Number	10/714,088
Filing Date	November 14, 2003
First Named Inventor	Sreenivasan et al.
Art Unit	Unassigned
Examiner Name	Unassigned
Attorney Docket Number	P69/MII-29-11-03

ENCLOSURES (Check all that apply)

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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Law Office of Kenneth C. Brooks
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Date	2/5/04

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: McMackin et al.

PATENT APPLICATION

Serial No.: 10/714,088

Group Art Unit: Unassigned

Filing Date: November 14, 2003

Examiner: Unassigned

For: DISPENSE GEOMETRY TO ACHIEVE HIGH SPEED FILLING AND THROUGHPUT.

INFORMATION DISCLOSURE STATEMENT

Commissioner
for Patents
Alexandria, VA 22313-1450

Sir:

The following information is submitted in compliance with Applicants' duty of disclosure under 37 C.F.R. § 1.56. Form PTO-1449 and a copy of each reference recited below accompanies this document. It is respectfully requested that the cited information be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

ISSUED PATENTS

<u>Patent Number</u>	<u>Inventor</u>	<u>Grant Date</u>
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<u>Document No.</u>	<u>Inventor</u>	<u>Pub. Date</u>
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- Haisma, J. et al. "Mold-Assisted Nanolithography: A Process for Reliable Pattern Replication," *Journal of Vacuum Science and Technology*, vol. 14, pp. 4124-4128, 1996.
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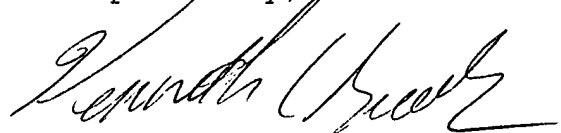
Nguyen, A. Q. "Asymmetric Fluid-Structure Dynamics in Nanoscale Imprint Lithography," University of Texas at Austin, August 2001.

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1

of

5

Complete if Known

Application Number	10/714,088
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Filing Date	11/14/2003
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First Named Inventor	McMackin et al.
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Group Art Unit	Unassigned
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Examiner Name	Unassigned
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Attorney Docket Number	P69/MII-29-11-03
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U.S. PATENT DOCUMENTS

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Application Number	10/714,088
Filing Date	11/14/2003
First Named Inventor	McMackin et al.
Group Art Unit	Unassigned
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Attorney Docket Number	P69/MII-29-11-03

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Sheet	2	of	5
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Sheet 3 of 5

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Application Number	10/714,088
Filing Date	11/14/2003
First Named Inventor	McMackin et al.
Group Art Unit	Unassigned
Examiner Name	Unassigned
Attorney Docket Number	P69/MII-29-11-03

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	A21	Gokan et al., "Dry Etch Resistance of Organic Materials," J. Electrochem. Soc. 130:1, 143-146 (Jan. 1983)	
	A22	LIN, "Multi-Layer Resist Systems", Introduction of Microlithography," American Chemical Society, 1983, pp. 287-350, IBM T.J. Watson Research Center, Yorktown Heights, New York 10598.	
	A23	KRUG et al., "Fine Patterning of Thin Sol-Gel Films," Journal of Non-Crystalline Solids, 1992, pp. 447-450, vol. 147 & 148.	
	A24	Kotachi et al., "Si-Containing Positive Resist for ArF Laser Lithography," J. PhotopolymerSci. Tevhnol. 8(4) 615-622, 1995.	
	A25	Krauss et al., "Fabrication of Nanodevices Using Sub-25nm Imprint Lithography," Appl. Phys. Lett 67(21), 3114-3116, 1995	
	A26	CHOU et al., "Imprint of Sub-25 nm Vias and Trenches in Polymers," Applied Physics Letters, November 20, 1995, pp. 3114-3116, vol. 67(21).	
	A27	CHOU et al., "Imprint Lithography with 25-Nanometer Resolution," Science, Apr. 5, 1996, pp. 85-87, vol. 272.	
	A28	HAISMA et al., "Mold-Assisted Nanolithography: A Process for Reliable Pattern Replication," Journal of Vacuum Science and Technology, Nov/Dec 1996, pp. 4124-4128, vol. B 14(6).	
	A29	CHOU et al., "Imprint Lithography with Sub-10nm Feature Size and High Throughput," Microelectronic Engineering, 1997, pp. 237-240, vol. 35.	
	A30	SCHEER et al., "Problems of the Nanoimprinting Technique for Nanometer Scale Pattern Definition," Journal of Vacuum Science and Technology, Nov/Dec 1998, pp. 3917-3921, vol. B 16(6).	
	A31	XIA et al., "Soft Lithography," Annu. Rev. Mater. Sci., 1998, pp. 153-184, vol. 28.	

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Sheet 4 of 5

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Application Number	10/714,088
Filing Date	11/14/2003
First Named Inventor	McMackin et al.
Group Art Unit	Unassigned
Examiner Name	Unassigned
Attorney Docket Number	P69/MII-29-11-03

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	A32	XIA et al., "Soft Lithography," Agnew. Chem. Int. Ed., 1998, pp. 550-575, vol. 37.	
	A33	WU et al., "Large Area High Density Quantized Magnetic Disks Fabricated Using Nanoimprint Lithography," Journal of Vacuum Science and Technology, Nov/Dec 1998, pp. 3825-3829, vol. B 16(6).	
	A34	COLBURN. et al., "Step and Flash Imprint Lithography: A New Approach to High-Resolution Patterning", Proc. of SPIE, 1999, pp. 379-389, vol. 3676.	
	A35	CHOU et al., "Lithographically-Induced Self Assembly of Periodic Polymer Micropillar Arrays," Journal of Vacuum Science and Technology, Nov/Dec 1999, pp. 3197-3202, vol. B 17(6).	
	A36	CHOI et al., "Design of Orientation Stages for Step and Flash Imprint Lithography," Precision Engineering, Journal of the International Societies for Precision Engineering and Nanotechnology, 2001, pp. 192-199, vol. 25.	
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Examiner Signature		Date Considered	
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Sheet 5 of 5

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Application Number	10/714,088
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First Named Inventor	McMackin et al.
Group Art Unit	Unassigned
Examiner Name	Unassigned
Attorney Docket Number	P69/MII-29-11-03

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	A43	Nguyen, A. Q., "Asymmetric Fluid-Structure Dynamics in Nanoscale Imprint Lithography," University of Texas at Austin, August 2001.	
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